

repetition of that of the *Aphroditaceæ*. Their feet are simple rami, which have no relation to the limbs of the Arthropoda.

It must, however, be admitted that the reproductive organs of the *Myzostoma* differ considerably from those of the true Annelids. Leaving out of consideration their hermaphroditism, which occurs also among certain polychæteous Annelids, the existence of a cloaca deserves to be especially indicated.

The deferent canals are also exceptional, at least unless we compare them with the segmentary organs of those Chætopoda which have only a single pair (*Parthenope*). The existence of ventral suckers is a peculiarity of little importance, and in accordance with the conditions of parasitism. Moreover a sucking-disk is met with in the *Leucodora* among Chætopoda.—*Zeitschr. für wiss. Zool.* xvi.; *Bibl. Univ.* 1866, *Bull. Sci.* p. 153.

On the Synonymy and Geographical Distribution of Jussiaea repens
(Linn.). By C. MARTINS.

Having for the last four years cultivated one of the species of *Jussiaea* under the most varied conditions of dryness and moisture and shade and light, I have been able to demonstrate how the form, the size, the pubescence of the leaves, the size of the flowers, and, indeed, the entire habit of the plant were subject to vary. After having familiarized myself with all these forms, I consulted the herbaria, and personally visited those of the museum and of MM. Delessert and Cosson at Paris, of Delile and Cambessides at Montpellier, and of M. de Candolle at Geneva. Dr. Hooker, at my request, was good enough to go through that of Kew, and M. Boissier that which he possesses at Geneva. From this examination it results that *Jussiaea repens*, described by Linné in 1747*, has since received twelve different names: namely, *J. adscendens*, Linn.; *J. diffusa*, Forsk.; *J. grandiflora*, Mich.; *J. peploides*, H. J. Kunth; *J. fluvialis*, Blume; *J. ramulosa*, De C.; *J. swartziana*, De C.; *J. stolonifera*, Guill. et Per.; *J. alternifolia*, E. Meyer; *J. australatica*, Ferd. Müll.; and *J. fluitans*, Hochst.

I am not the first botanist who has perceived that some of these names do not represent species, but simple varieties. Linné, De Candolle, Sir William Hooker, Schiede and Ehrenberg, Torrey and Asa Gray, Hasskarl, Miguel and Grisebach each united some of them, but without regarding them all as mere modifications of one and the same specific type.

This multifarious synonymy has nothing extraordinary in it; it may be explained by the immense area which *Jussiaea repens* occupies on the surface of the globe, as much as by the variability of its form, every botanist hesitating to recognize an Indian species in an African, American, or Australian plant. This great extension justifies the law laid down in the first place for Lapland alone by Linné†, and since extended to the whole world by A. de Candolle‡—namely,

* *Flora Zeylanica*, p. 75. † *Flora Lapponica*, Prolegomena, § 31.

‡ *Géographie botanique*, p. 1005.

that the aquatic plants have the most extended area. Setting books aside, I have been able to follow this species from station to station, by means of the authentic specimens deposited in the herbaria, in Asia, Oceania, Africa, and America. In Africa it extends without interruption from Bône (in Algeria) to the Cape of Good Hope, over 61 degrees of latitude, and in longitude from the mouths of the Senegal to the islands of Mauritius and Réunion—that is to say, over 73 degrees. In Asia I have myself collected this plant in the marshes of Alexandretta in Syria, and it may be traced into India as far as Ceylon, and across the archipelago of the Philippines and the Sunda Islands as far as the south of Australia. This area includes 112 degrees of longitude and 73 degrees of latitude. In America the extreme points are, in the north Kentucky, and in the south the Rio de la Plata, giving 72 degrees; and from east to west Mexico and Bahia, or 60 degrees of longitude.

Thus *Jussiaea repens* occupies a broad band passing all round the globe, of which the two extreme borders parallel to the equator, in the northern and southern hemispheres, are distant each 35 degrees from the equinoctial line.

Further investigations pursued in the same spirit will probably show that this example is not isolated; and already M. Ernest Cosson* has indicated an aquatic grass, *Leersia hexandra*, Swartz, the geographical extension of which is not less, and its botanical synonymy equally complicated.—*Comptes Rendus*, 9th July, 1866, pp. 39-41.

Note on a Regular Dimerous Flower of Cypripedium candidum.

By ASA GRAY.

Mr. J. A. Paine, junr., of New York, who two years ago detected an interesting monstrosity of *Pogonia ophioglossoides*, has now brought to me, preserved in spirit, a monstrous blossom of *Cypripedium candidum*, which demands a record.

The plant bears two flowers: the axillary one is normal; the terminal one exhibits the following peculiarities. The lower part of the bract forms a sheath which encloses the ovary. The labellum is wanting; and there are two sterile stamens, the supernumerary one being opposite the other, *i. e.* on the side of the style where the labellum belongs. Accordingly the first impression would be that the labellum is here transformed into a sterile stamen. The latter, however, agrees with the normal sterile stamen in its insertion as well as in shape, being equally adnate to the base of the style. Moreover the anteposed sepal is exactly like the other, has a good midrib and an entire point. As the two sterile stamens are anteposed to the two sepals, so are the two fertile stamens to the two petals, and the latter are adnate to the style a little higher than the former. The style is longer than usual, is straight and erect; the broad, disciform stigma therefore faces upwards; it is oval and symmetrical, and a light groove across its middle shows it to be

* *Flore Algérienne*, 4to, t. i. p. 18.